

# HEARTLAND ENGINEER



KANSAS CITY DISTRICT'S NEWS MAGAZINE

FEBRUARY 2006

## Military Construction: Lewis & Clark Center taking shape







Bill Johnson (right), project engineer at Fort Leonard Wood Resident Office, was presented the award for the Missouri Area Office Employee of the Year by Rex Ostrander at the first annual MAO offsite conference held Jan. 19 at the Truman Lake Visitor Center. Johnson was selected for his emphasis on schedule and quality, for his communication and relationship skills that set the stage for project success and for his involvement in numerous office and community activities.

# FEATURES

## CORPS HELPS CLEAR WAY FOR GREAT DEVELOPMENT 6

Li Tungsten's former New Jersey operations left a site contaminated with heavy metals and numerous other toxins. Joint efforts by the Corps, the EPA and contractors have cleaned up contamination, returning the site to use.

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The Lewis and Clark Center will bring the newest in educational technology to its 96 classrooms. Kansas City District contractors reached the project's 50 percent complete point in December.

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Every year, in the month of January, thousands of people flock to Corps lakes to view a bird of prey once on the list of endangered species.

## 18 LAKES 12

This ongoing series outlines the district's 18 lake projects. This month's columns feature Pomme de Terre Lake and Tuttle Creek Lake.

# INSIDE THE HEARTLAND

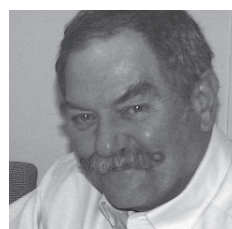
## NEWSWATCH

Newsbriefs from around the District and around the Corps.



## PEOPLEPOWER

Buck Vannaman has worked with design-build contracts for 30 years.



## WHAT'SNEW

Voice Over Internet Protocol is the basis for the district's new telephone system. It will mean changed numbers, but contain user-friendly and helpful features.



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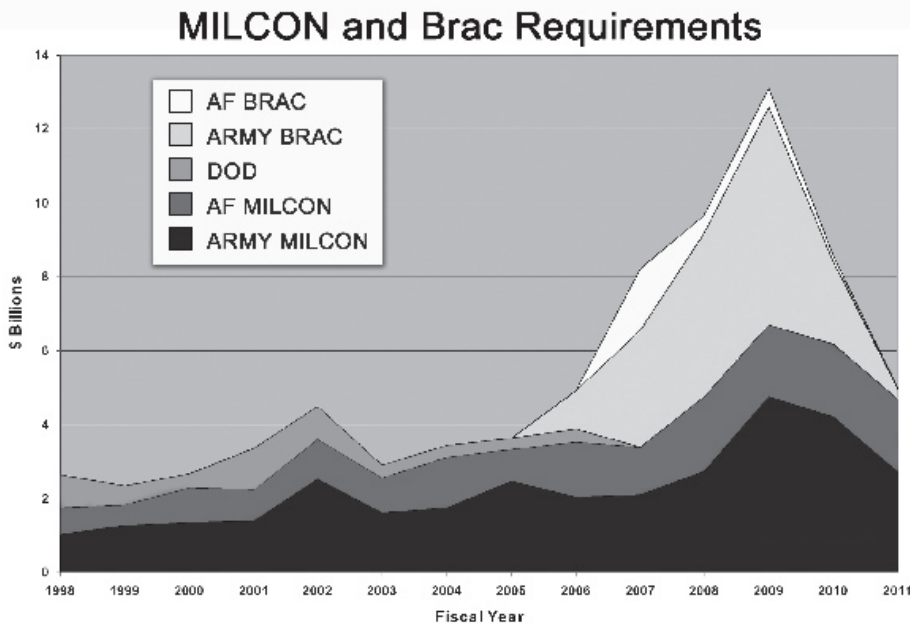
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## ON THE COVER:

Contractors work on the ceremonial entrance of the new Lewis and Clark Center at Fort Leavenworth, Kan. Dave Manka, resident engineer for the Kansas City District Fort Leavenworth office, said the structure is 50 percent complete, on schedule and on budget. (Photo illustration by Rusty Thomas based on a photograph by Eric Cramer)



COL Michael A. Rossi

## BUCKLE UP

Our Military Program is about to sail into a “Perfect Storm” of challenges—Base Realignment and Closure (BRAC), Return of Forces from Overseas, and Army Transformation to Modular Forces. Alone, each of these programs brings increased expectations for the Corps to be on-time, on-budget without sacrificing quality. Alone, each would be a challenge given our traditional processes. Taken together, we cannot succeed without reinventing how we do business. The graph above gives you some sense of USACE’s overall challenge.

Simply stated, our current standards and processes do not support DoD’s requirement of getting quality facilities in the timeframes our Soldiers and Airmen need them in today’s environment. In addition, we can anticipate with near certainty that actual funding will not approach the stated requirements—perhaps as low as 60 percent of what our traditional metrics and models say we will need. We’ve got to make every dollar count and we’ve got to transform our processes to get there. Therefore, we must reinvent, or re-engineer, the MILCON process.

USACE is at the onset of MILCON reinvention. Right now there are several tenets driving this reinvention. First, there is a greater emphasis on master planning in which the Corps will provide additional support to the Army’s Installation Management Agency. Second, a recommitment to customer-dictated facility requirements and standards—in the Army’s case the primary customer will be IMA. Third is a much greater standardization of our facilities and processes. This will include transition from design-build to use of prototype models, and movement towards Centers of Standardization for facility types. The Corps will standardize processes by enforcing consistent RFPs and acquisition approaches, consistent engineering and construction applications, expanding the use of all types of construction (Type I through Type V), and by maximizing use of industry standards. The last two tenets will allow the Corps to execute Army MILCON as a continuous building program and to expand the use of manufactured building solutions.

Regionally, we’re also pushing change in the Northwestern Division and within the district. The division has developed a Regional MILCON acquisition strategy specifically designed to fill in the gaps left by the national strategy. Working with Omaha and Seattle Districts, we’ve proposed an acquisition plan which will be faster and cheaper to our customers than if we’d individually struck out on our own as we’ve done in the past. Kansas City District is leading the way for the Corps by developing and using Construction Manager at Risk (CM@Risk) on difficult projects. We were the first in the Corps to use this process on the Lewis and Clark Center at Ft. Leavenworth (see page 8) and have been very successful. We’ll continue to break ground with this innovative strategy and other acquisition initiatives which will allow us to truly be faster, better, and cheaper.

With smart business practices and by operating as a team, together we will survive the storm.

## PER DIEM RATES RAISED

The General Services Administration has updated the per diem rates for several major metropolitan regions, including the Washington, D.C., area, where the seasonal rate for fall lodging will rise by \$32 to \$192 a night.

The rate changes apply to all government travel beginning Feb. 1, according to a Federal Travel Regulation per diem bulletin released Jan. 23 and published in the *Federal Register*. GSA adjusted the rates after determining that lodging and meals and incidental expenses allowances for the localities failed to adequately reflect costs.

Much of the United States is covered under a standard rate, based on Consumer Price Index data, which is \$60 for lodging and \$39 for meals and incidental expenses. But a number of locations, including nearly all major metropolitan areas, are assigned per diem rates that differ from the standard.

Twelve areas were moved off the standard rate and assigned higher per diem rates, including: Butt County, Calif.; Richmond County, Ga.; Twin Falls, Idaho; the Indiana cities of Hammond, Munster and Merrillville; Carson City, Nev. and Will County, Ill.

Meals and incidental expense rates were reviewed in locations in Illinois, Michigan, Montana and New Mexico.

The seasonally adjusted per diem rate for lodging in Washington was raised significantly for the fall months. From Sept. 1 through Nov. 30, it will be \$192; for Dec. 1 through June 30, the rate will be \$180; and the rate for July 1 through Aug. 31 will be \$150.

The adjusted rates cover hotels in the District of Columbia; the Virginia cities of Alexandria, Falls Church and Fairfax; the Virginia counties of Arlington, Fairfax and Loudoun; and the Maryland counties of Montgomery and Prince Georges.

GSA also announced some smaller increases.

The rate for lodging in Los Angeles, which includes Orange and Ventura counties and Edwards Air Force Base, was raised from \$96 to \$104 year-round while Detroit's allowance rose from \$90 to \$93 for the year.

The seasonal lodging rates for Santa Barbara, Calif., were increased from \$100 to \$133 for Sept. 1 through June 30 and from \$117 to \$173 for July 1 to Aug. 31.

The yearlong lodging rate for Denver was raised from \$119 to \$124, and in Pensacola, Fla., it went from \$61 to \$68. The lodging rate for Minnesota's Dakota County increased from \$65 to \$78 year-

round and in El Paso, Texas, the rate increased from \$66 to \$69. The Frederick, Md., rate went from \$71 to \$78.

Arizona's Grand Canyon region, which was combined with the Flagstaff, Ariz., region, will have two seasonal of \$60 for Nov. 1 through Feb. 28 and \$77 for the rest of the year.

The old rate was \$68 a night for the entire year.

GSA last adjusted per diems in November when it announced changes to the 2006 rates published on Sept. 1, 2005.

All per diem rates are published on GSA's domestic per diem Web site, GSA's domestic per diem Web site, <http://www.gsa.gov/Portal/gsa/ep/home.do?tabId=0>.—*Daniel Pulliam, Government Executive*.

## ROSETTA STONE FOREIGN LANGUAGE TRAINING

The Army recently entered into a contract agreement with Fairfield Language Technologies to provide Rosetta Stone® foreign-language training, at no cost, to all active Army, National Guard, Reservists and Department of the Army Civilians worldwide via the Army e-Learning portal on the Army Knowledge Online.

The objective of this training tool is to develop a force capable of engaging in basic communications with the populace in the area deployed - and with coalition partners. Rosetta Stone® online training is an immediate, cost effective way to provide a training capability across the force, and is an excellent tool for units preparing to deploy and Soldiers preparing to fill billets outside the United States.

The Army has had much success with Rosetta Stone® on Army e-Learning. More than 12,000 Soldiers and Army Civilians have used the online training since it became available on November 7, 2005. The top five courses accessed are: Spanish (Lat Am); German; Arabic; French and Italian.

\*Free state-of-the-art language courses through Army e-Learning, include Arabic, Chinese (Mandarin), Danish, Dutch, English, French, Farsi (Persian), German, Greek, Hebrew, Hindi, Indonesian, Italian, Japanese, Korean, Pashto, Polish, Portuguese (Brazil), Russian, Spanish (Latin America), Spanish (Spain), Swahili, Swedish, Thai, Turkish, Vietnamese and Welsh.

\* Each user must have an AKO account to register for Army e-Learning.

\* To access Army e-Learning, visit AKO at [www.us.army.mil](http://www.us.army.mil) and select "My Education" and click Rosetta Stone. If you are already registered for the Army e-Learning, logon and access the Rosetta Stone® courses or select Register to obtain your e.Learning password. All course completions are posted to individual ATRRS records.—*Stand To!*

## CORPS TO SPEND \$54 MILLION ON MISSOURI RIVER HABITATS

The U.S. Army Corps of Engineers will spend more than \$54 million this year to protect endangered or threatened species along Missouri River, the agency announced Jan. 23.

"This level of funding allows us to not just comply with the Endangered Species Act, but gives us a good start on the path to recovery for these species," said Brig. Gen. Gregg Martin, northwestern division commander for the Corps.

Along the river above Sioux City, Iowa, the Corps plans to build sandbar habitat for least terns and piping plovers in Nebraska, South Dakota and North Dakota and monitor adult populations and nesting success.

Below Sioux City, officials will dig dikes along the river in Missouri, Nebraska, Iowa and Kansas to create shallow water habitat for the pallid sturgeon.

Officials also will upgrade federal and state hatcheries to counter the lack of natural sturgeon reproduction and begin a comprehensive study of the sturgeon population.

The Corps will monitor the response of sturgeon to the "spring rise" - the plan to encourage spawning by releasing water this spring from upstream dams on the Missouri River. Environmental groups support the plan, but Missouri officials fear it will increase flood risks for farmers. Barge interests say it could lead to reduced water limits in the fall, shortening the navigation season.

The Corps is expected to release its final plan for a spring rise within a few weeks.

The spring rise is supposed to mimic how the river swelled naturally for centuries with the melting of mountain snow before dams were built and a long drought brought the river to historically low levels.—*Sam Hananel, Associated Press*.

## CALL TO RETIREES

The Heartland Engineer is now available online. It can be accessed at [www.nwk.usace.army.mil](http://www.nwk.usace.army.mil). Click on "Organization," then "Public Affairs," then "Heartland Engineer."

In an effort to improve our retiree database by adding email addresses to alert retirees of unique opportunities, please contact the Public Affairs Office.

Also, if you would like to be taken off the mailing list and receive a notification by email each month when the newest issue is published, please contact Diana McCoy in Public Affairs at (816) 983-3485 or e-mail her at [diana.mccoy@usace.army.mil](mailto:diana.mccoy@usace.army.mil).



## Buck Vannaman: An experienced take on design-

Buck Vannaman reviews construction requirements at his desk in the Kansas City District's Construction Division offices. Vannaman, who is experienced with projects using the design-build delivery system, said the system is more commonly used now than in the past.

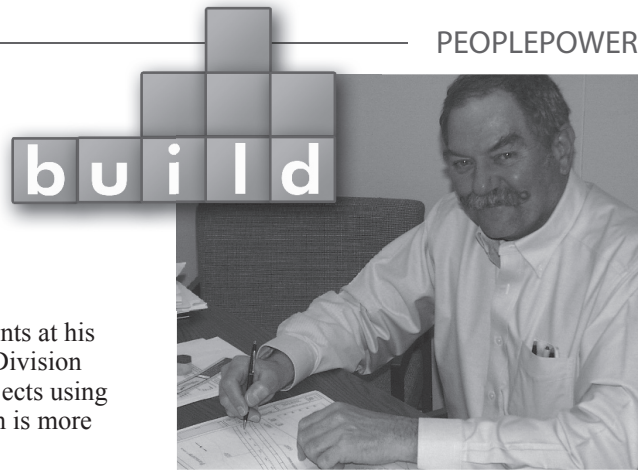


Photo by Eric Cramer

Although the use of design-build, the concept in which the design and construction is accomplished under a single contract for a given project, has increased within the U.S. Army Corps of Engineers in recent years, it isn't a new concept.

Buck Vannaman, a civil engineer in the Kansas City District Construction Branch, said he first encountered design-build more than 30 years ago.

"The first that I remember was back in 1975, so it's not some totally new thing," Vannaman said.

Vannaman said that he has watched as the number of design-build contracts increased.

"It's been more of a change in philosophy than a change in the rules (governing contracts)," he said. "I was involved in a couple of them in the early '80s and again in the early '90s. In the past five to seven years it's escalated."

He said design-build can compare favorably to the more traditional method, in which the Corps lets one contract for design of a project, and a second contract for its construction.

"One of the things that has prompted the increase in its use is the idea of being able to get a job completed in an overall length of time shorter than with the traditional method," Vannaman said. "It can be quicker from conception to the time you deliver it to the user."

He said there are a number of reasons for this, especially in regard to building construction projects.

"It means portions of the design can be completed before the entire design is finished. One can, say, proceed with clearing work or demolition, or grading on a site, before the final design of the building is complete. In the traditional method, you'd have to wait until the contract for designing the building was awarded, and then wait for the AE to be complete before letting bids for construction and starting work on the site," Vannaman said. "All the nitty-gritty details for the building can be being done while other construction work is being accomplished."

Vannaman said placing the responsibility for an entire structure's design and construction to the builder-designer

also reduces risk to the Corps, as certain risks go to the design-build contractor, rather than another firm, or the Corps, in the case of an in-house design.

He said shorter delivery times have made some customers happy, but design-build doesn't always satisfy everyone. For example, the big push to meet global repositioning has allowed the district to examine other avenues.

"There are sometimes when they've thought going with design build meant they could have anything they wanted," Vannaman said. "That isn't always the case – you reach the reality that it doesn't always work out that way."

Vannaman wrote a paper offering advice to those who might use design-build. One paragraph reads, "When considering to use design/build, it is not a cure-all which will automatically result in everything being correct. Don't just go with D/B because it is the 'in' thing to do. Design/Build certainly has its time and place. Always think through the reasons both for and against when contemplating D/B and choose the best method to contract for that particular project."

He also wrote that it is critical to have all of the contract's requirements detailed in the original request for proposals.

"If you really desire a certain feature, then the requirement for that has to be in the RFP."

Vannaman said design-build is a useful tool for Corps' construction projects.

"Its main advantages come in the time advantage and the shifting of risk," he said.

### PEOPLEPOWER

People Power is a monthly column designed to highlight the outstanding accomplishments of a district employee. Supervisors and peers are encouraged to nominate team members to be featured in an upcoming issue of Heartland Engineer.

Nominations should include a brief summary of the nominee's accomplishment and contact information for the person submitting the nomination. Nominations should be submitted by the 15th of the month for consideration for the next issue.

Nominations should be sent to:

**PEOPLEPOWER**  
c/o Public Affairs Office  
700 Federal Building  
601 East 12th Street  
Kansas City, Missouri 64106  
or e-mailed to:  
thomas.a.o'hara@usace.army.mil

Recently on a cool, breezy morning on the Glen Cove waterfront in New York, the city's mayor enthusiastically looked at the public and media and said that as she stands before them the last truck load of radioactive waste is being hauled from this property, a portion of the Li Tungsten Superfund Site, clearing the way for the new waterfront development that will take its place.

Standing along side her at the podium were members of the U.S. Environmental Protection Agency, U.S. Army Corps of Engineers, New York District and state and local agencies who played major roles in making this milestone a reality for the small community.

The City of Glen Cove is located on the north shore of Long Island, New York, about 28 miles east of New York City. The Long Island Sound lies to its north and the Hempstead Harbor to its west. Running inland from the harbor is the Glen Cove Creek, a 1-mile federal navigation channel, dredged by the Corps every few years to ease boat travel. The city has eight miles of waterfront, one mile of which has been used by industry.

### Li Tungsten Superfund Site

For decades, the one-mile industrialized portion of the Glen Cove waterfront was occupied by various industries and a portion was used as a dumping ground. All of this occurred before the establishment of the strict environmental laws we have today.

Wah Chang Corp. and Wah Chang Smelting and Refining Co. were two of these companies. Wah Chang means "great development" (in part) in Chinese, and these companies, along with others such as the Li Tungsten Corp., ran a facility on different portions of the site from the 1940s to the mid 1980s.

The facility processed tungsten, a material used in industry to harden steel. The facility received tungsten ores from around the world and smelted them to produce such things as tungsten carbide powder, tungsten wire and welding rods. The heavy metals and radioactive ore residues from this production process contaminated the property.

In the mid 1980's, Li Tungsten, the last in a series of site operators, went bankrupt and the property was

purchased by the Glen Cove Development Corporation (GCDC).

New York State asked the Environmental Protection Agency's Region 2, to investigate the property's land and nine buildings and remove any contaminated waste left by the company.

The EPA found large quantities of hazardous materials, such as laboratory chemicals and PCB-contaminated waste, in hundreds of rusted drums and in above underground tanks. In addition, the EPA also discovered asbestos, transformers, and gas cylinders containing compressed liquids and gases and elemental mercury spilled on the property. An EPA contractor had the site remediated and the most serious chemical and radioactive hazards at the former facility were removed.

The EPA's investigation also found low-level radiation and heavy metal contamination, posing a public health risk, in the soil throughout the 26-acre Li Tungsten facility as well as in the nearby 23-acre Captain's Cove property that was long used as a dumping ground by area businesses and residents.

### Corps assists EPA

In spring of 2005 the EPA issued an Interagency Agreement with the Corps' New York District to perform remediation work at the Captain's

Cove portion of the Li Tungsten Superfund Site. The work was awarded to and performed by the Corps' Kansas City District.

Garth Anderson, project manager for the Kansas City District, U.S. Army Corps of Engineers, said the district's involvement dated to a 2003 request for competitive cost proposals from the EPA.

"The EPA chose the Corps, and the Kansas City and New York Districts, to do the work. We let the contract in December of 2004," Anderson said. "We transferred the contract to New York district upon award, but we continued to provide engineering, design and technical support during the construction, to include managing the removal of the radioactive waste at the site."

Anderson said the Kansas City District is a national leader in remediating radioactive waste sites, in part because of its experience with the Formerly Used Sites Remediation Program, or FUSRAP, inherited from the Department of Defense.

"The EPA chose the Corps, and the Kansas City and New York Districts, to do the work. We let the contract in December of 2004," Anderson said. "We transferred the contract to New York district upon award, but we continued to provide engineering, design and technical support during the construction, to include managing the removal of the radioactive waste at the site."



“Our responsibility was to excavate the soil, separate the radioactive and metal-contaminated soil from the non-contaminated soil and transport the contaminated soil to appropriately licensed disposal facilities,” said Richard Gajdek, project manager, New York District, U.S. Army Corps of Engineers.

Gajdek also said that throughout the construction period the public has been protected from any potential health threats. “The public is prohibited from the site that is fenced off and guarded. Also, we continually monitor the air quality and inspect and clean the trucks that enter and leave the property.”

The construction contractor, Conti Environmental Services, began the remediation work in spring 2005 and most of the work has been completed. Approximately 87,500 tons of radioactive soils and 35,000 tons of metals contaminated soils have been removed from the site and transported to disposal facilities. This cleanup, along with the future cleanup of other areas of the site will clear the way for the new waterfront redevelopment.

Ken Maas, project engineer for the Kansas City District, said the cleanup of radioactive waste at the site was performed as part of an existing multiple award contracts.

“We partnered with the EPA on selecting a contractor based on cleanup proposals from our four qualified pre-placed remedial action contractors. For disposal of the radioactive waste, we used one of our existing disposal contractors, U.S. Ecology, in Idaho,” Maas said. “We shipped more than 850 rail cars of waste as we managed that part of the contract.”

Key to the success of the effort, Maas said, was that the cleanup standards were achieved and the project was completed within a relatively short deadline set by the EPA.

“We started removing waste in April, 2005, and finished in December 2005, so it was a really very short period of time to complete the cleanup actions. The EPA set a deadline for us and we achieved it. The site is clean and ready for the new development they have planned out there, and we have a happy customer, which is always nice,” Maas said.

### **New Waterfront Development**

The Li Tungsten Superfund Site properties are the centerpiece for the community’s plans to revitalize 214-acres of the city’s waterfront.

Glen Cove Industrial Development Agency’s goal is to link the city’s nearby downtown shopping area with the waterfront. Thirty percent of the development will be comprised of parks, public squares, nature walks and botanical gardens. Pedestrian friendly walking paths will be lined with restaurants, art galleries, stores and hotels. In addition there will be luxury condominiums and various modes of public transportation including - trolleys, electric carts, water taxis and ferry service to New York City.



Photos provided

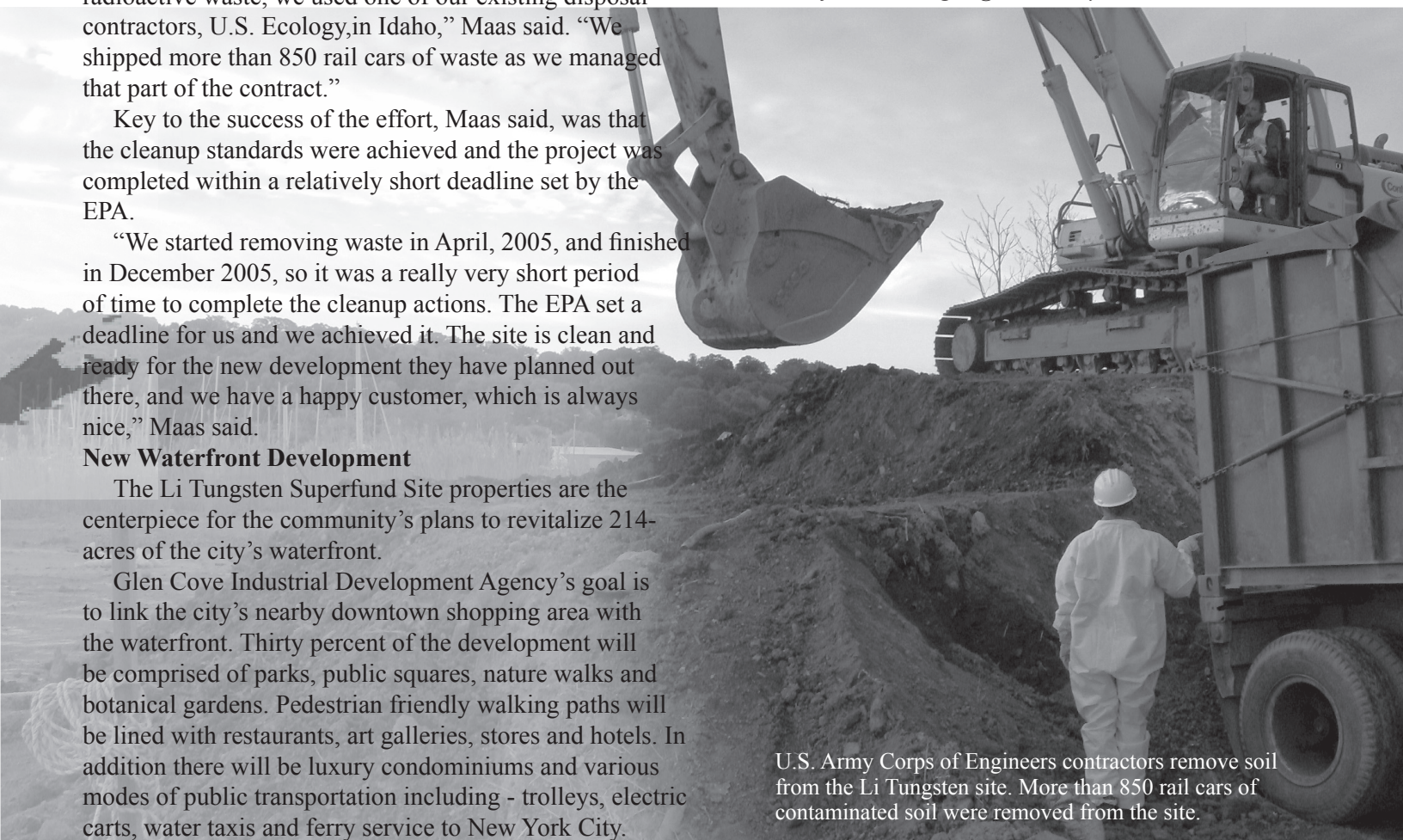
U.S. Army Corps of Engineers contractors remove soil from the Li Tungsten site. More than 850 rail cars of contaminated soil were removed from the site.

The new waterfront development is expected to create as many as 1,700 new full-time jobs, bring in new business that will generate as estimated \$200 million in annual sales. The Glen Cove waterfront development is expected to be completed in a decade.

### **For Additional Information**

To learn more about the waterfront development, please visit [www.glencove-li.com](http://www.glencove-li.com) or for information about Superfund, please visit the EPA Web Site at [www.epa.gov/superfund](http://www.epa.gov/superfund).

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U.S. Army Corps of Engineers contractors remove soil from the Li Tungsten site. More than 850 rail cars of contaminated soil were removed from the site.





Photo by Rusty Thomas

*Setting the standard --*

# Lewis & Clark Center

## reaches halfway mark

Story by Eric Cramer

State-of-the art features will make the classrooms of the new Lewis and Clark Center one of the premier military learning centers in the world, according to experts from the U.S. Army Command and General Staff College in Fort Leavenworth, Kan.

Construction of the facility was 50 percent complete in December, and U.S. Army Corps of Engineers project managers say the project is on budget and on schedule.

Bill Gross, project manager for CGSC, said the classroom construction uses a unique system. Technology set for use in the Lewis and Clark building is first tested in a model classroom in the CGSC's Eisenhower Building.

Once used in the Eisenhower Building, the school moves the concepts to an under-construction test classroom in the Lewis and Clark Center. If it works there, it is then planned for the 96 classrooms in the center.

"The whole idea is to catch things early, to bring it in here and, once it is proven, expand it to the other 96 classrooms," Gross said in the test classroom. "When you have nearly 100 classrooms, every dollar you spend is multiplied by 100."

Lynn Rolf, director of educational technology for the CGSC, is an expert on the design, and explained many of its features.

"We work in what we call 'staff groups' of 16," Rolf said. "The staff groups are split into smaller groups of four officers. If we give the small groups an assignment, they can move the desks to reconfigure the classroom — each small group will have its own white board and full access to its computers. The computers also have access to the full battle-command network, so these officers are seeing some of the collaborative tools they'll see after graduation."

He demonstrated how two disks can pivot together to create a single module for four officers.

Rolf said each classroom is 30-by-30 feet, and one wall of each is removable, allowing two classes to work together.

Innovations in the classroom don't end with computers.

All of the room's functions can be controlled through a single, notebook-sized remote control.

"On a typical day, say the first class is history. The students are here, but the instructor hasn't arrived yet. The students can be watching the day's news on the television screens at the front of the room," Rolf said.

He said when the instructor arrives; he can, with a touch on the remote, switch from the current events to documentary video on player concealed in a service closet at the rear of the room. Cameras, permanently installed in the front, rear and ceiling of each room, allow video-teleconferencing. The ceiling camera focuses on a fixed area of the instructor's desk, where the instructor can place a book, map or photograph which is then digitally displayed on the monitors at the front of the classroom.

"What we're trying to do is provide real-time, just-in-time relevant information for the students to discuss," Rolf said.

Gross said some innovations, such as a large video screens in the classrooms, are obvious. Others are more subtle.

"Those are cable trays," he said, indicating mesh troughs above an unfinished ceiling. "When they pull cables for computers or communications now, they just drape them above the ceiling, or run them through conduits. These trays make it easier to get to the cables to repair them or replace them when they need it. They're underneath the raised floors in the classrooms too, and you can run new cable a lot faster than in an old-fashioned classroom."

Rolf said interested parties from several colleges and universities have toured the Lewis and Clark construction site seeking ideas. "We're trying to set the standard for classroom design," he said.

"Everyone who has visited here has left saying, 'How



## Management method maintains control

It sounds ominous – “construction manager at risk,” but it carries some advantages for both U.S. Army Corps of Engineers and its contractors, said Christine Hendzlik, project manager for the construction of the new Lewis and Clark Center at Fort Leavenworth, Kan.

“Construction manager at risk” is a project delivery method in which the construction manager also acts as the contractor for the project’s construction.

“It’s a way to save time, save money and give your customer a better product, while retaining control of the design and construction process,” she said.

“At risk” refers to the fact that the construction manager provides pricing during the design phase of the project, and if the price goes up, the contractor’s profit goes down.

“There are provisions to negotiate and limit the risk, but the construction manager is still bearing some of that risk,” Hendzlik said.

She said there is “successive target” phrasing in the Federal Acquisition Regulation that helps.

“It allows you to set a beginning price and, then you negotiate as the project reaches successive targets,” Hendzlik said.

Although the process encourages the contractor to stay within set price limits, it also limits the Corps.

“We have to be careful with the design so that we aren’t asking for more than was in the original design,” Hendzlik said. “It creates a responsibility for both sides to toe the line on costs.”

She said the construction manager at risk process is very similar to a design-build contract, except that in most design-build project the builder subcontracts the designer. “With construction manager at risk, we contract with the designer directly, so we have direct control over the designer and the contractor.

Another advantage lies in the fact that the contractor is on-board during the design process. “It helps us build an improved relationship with contractor, and the contractor will have knowledge of problems that you don’t,” Hendzlik said.

“We build a lot of masonry projects, but if a contractor knows that there aren’t a lot of bricklayers in the area and that means we’re going to have to import them from 500 miles away, then he might suggest we look at concrete or some other type of construction.”

With the Lewis and Clark project 50 percent complete, Hendzlik has had the chance to compare construction management at risk to other methods.

“It’s better. Compared to the traditional design-bid-build it’s better. Because we had the contractor here early on, we actually gained a whole construction season,” she said.



Photo by Rusty Thomas

A welding contractor works on the Lewis and Clark classroom facility. The 96 classroom facility was 50 percent complete in December.



Photo by Eric Cramer

Lynn Rolf, director of educational technology for the U.S. Army Command and General Staff College, Fort Leavenworth, Kan., describes the high-tech features of a model classroom in the installation’s Eisenhower Building. Technology tested in the model classroom will be used in the 96 new classrooms in the Lewis and Clark classroom facility, which is under construction.



A bald eagle watches over her two eaglets in their nest built in a cottonwood tree. The habitat Kansas City District lakes provide encourages bald eagles to return each year for nesting.

## CORPS PROVIDES VALUABLE HABITAT AND ATTRACTS NUMBER OF BIRDS

**B**enjamin Franklin disliked the bird because of its “bad moral character,” calling it a thief and coward. He would have preferred the turkey as our national emblem when our country’s leaders were deciding the matter in 1782.

Despite his resistance, the bald eagle was chosen, and since then has appeared on our coins, dollar bills, postage stamps, the Great Seal of the United States and atop flag poles across the nation.

“On ‘Inked,’ the reality show with the people at the tattoo parlor, they said the one of the most common tattoos they do are bald eagles,” said Mike Watkins, wildlife biologist with the Kansas City District. “Maybe bald eagles are so popular because we’re at war and they are the symbol of strength and freedom and it’s our national symbol so everybody wants to see it.”

Perhaps that is the reason why thousands of people visit the district’s project offices every year during the month of January to get a glimpse of the threatened bird.

“Our project offices have been hosting Eagle Days in the month of January every year for the past 10 to 17 years, and the majority of programs this year had record numbers,” Watkins said. “That surprises us because the eagle is much easier to see now. They’re coming back, and they were down-listed from endangered to threatened in 1995.”

Watkins mentioned one lady who has visited the Eagle Days program at Smithville Lake every year.

“I think people come to our lakes because we provide safe viewing opportunities and plenty of interpretive information,” Watkins said. “With our tremendous wintering and nesting habitat, we naturally attract bald eagles during the winter.”

Seven lake projects hosted Eagle Days this year in conjunction with the U.S. Fish and Wildlife Service, various state fish and wildlife agencies, county parks and recreation departments and local chapters of the Audubon Society.

“Our programs consisted of live eagle presentations with bald and golden eagles, eagle nesting PowerPoint presentations, Native American storytellers, eagle crafts for kids and guided eagle-viewing tours,” Watkins said. “More than 25,000 people viewed our display at the Lawrence Public Library and Smithville Lake.”

Watkins said each project coordinates its own individual eagle days because all the programs differ from each other.

“Some are a little more involved. Some do simple tours, and some have exhibits like Clinton and Perry Lakes that are a joint effort,” Watkins said. “It’s pretty much run by the lakes, and I assist if they need me to.”



# EAGLE DAYS

A young visitor looks through a spotting scope at two eagles perched on a tree in East Rolling Hills Park at Milford Lake. She was bused to the location as part of a wild eagle viewing tour where interpreters provided spotting scopes, binoculars and information on wintering bald eagles.



Photos by Mike Watkins



Bunnie Watkins (right), a natural resource management specialist at Perry Lake, helps visitors of the Clinton/Perry Lake Eagle Day make eagles out of clothes pins.

The program held at the Truman Lake Visitor Center had more than 1,000 visitors during its two-day event, hosting a live eagle program six times in conjunction with Dickerson Zoo and the Missouri Department of Conservation.

John Hernandez, a Mescalero Apache, was on hand to answer questions about Native Americans' relationship with eagles and sing songs while beating his hand-made drum. He explained they had a spiritual relationship with bald eagles who took their prayers up to God.

Other projects had crafts for children to do and bussed people out to viewing locations where spotting scopes were provided by the Corps and other Eagle Days partners.

"I've heard Missouri is probably one of the leading states for wintering bald eagles, and that's why we do Eagle Days in January," Watkins said. "We have 50-60 nesting pairs in Missouri and 20 nesting pairs in Kansas. But depending on the winter and how cold it is, Missouri runs between 2,500 to 3,500 wintering birds, and Kansas averages about 2,000 to 2,500, so the opportunity to see them in the wild increases dramatically because we have so many birds down here in the winter."

Watkins said everyone who went viewing during Eagle Days were able to see a bald eagle in the wild.

# Pomme de Terre Lake

## Gem of the Ozarks

[www.nwk.usace.army.mil/pommedeterre/pomme\\_home.htm](http://www.nwk.usace.army.mil/pommedeterre/pomme_home.htm)

Location of Dam: Near Hermitage, Mo.  
Stream/River: Pomme de Terre River  
Miles: Above Mouth of River: 45.6  
Storage Date: October 29, 1961  
Total Acreage: 18,353  
Lake Size: 7,790 Acres  
Dam Length: 4,630 ft, plus 2,790 ft. dike  
Yearly Visitation: 1.8 Million

Story by Diana McCoy

This is the third lake to appear in a series which will outline Kansas City District's 18 lake projects. All projects will appear in chronological order from the date they first stored water.

"Groundnut is better boiled than roasted," theorized Henry David Thoreau during his sojourn as a homeless person. Goundnut, known as "pomme de terre" to French trappers in the 1800s, or "apple of the earth," was plentiful in the region as a staple for Native Americans and grew along the river which took its name.

Pomme de Terre Lake, the "Gem of the Ozarks," was authorized in 1938 and completed in 1961.

"That nickname goes way back," laughed Brad Myers, operations manager for the lake. "It makes Pomme de Terre sound like a beautiful lake—which it is."

Visitors come from around the country to enjoy the many benefits Pomme de Terre has to offer.

"Every year we have a Muskellunge tournament," said Jonathan Carlisle, natural resource specialist at the lake. "But last year we had the 'Super Bowl' of musky fishing. People from all over the country came here and fished this lake during the Professional Musky Tournament Trail Qualifier."

A musky is considered one of the most difficult fish to catch because of its finicky behavior and relentlessness after the hook is set. It's not normally found in this part of the country but has been stocked since 1966, giving fishermen the opportunity to catch the trophy-sized fish.

"They call muskies 'the fish of 10,000 casts' because they are so difficult to catch," Myers said. "Muskies will sometimes follow alongside a boat, and just to have that happen is considered a good day."

The recreation season is kick-started every year by an annual celebration sponsored by the Pomme de Terre Rendezvous Association. Rendezvous is held every first weekend in May below the dam.



Photo provided

Rendezvous, an annual event sponsored by the Pomme de Terre Rendezvous Association, attracts thousands of visitors every year. Participants reenact the life of French Trappers from the 1800s.

"Several thousand people gather and reenact the French trapper life of the 1800s," Carlisle said. "Rendezvous features craft demonstrations and a primitive encampment where the historical period of 1720-1840 is re-created."

Another annual event includes a local fourth of July celebration where fireworks are set off on an island in the middle of the lake and several hundred people will watch from their boats.

Glen Locke, natural resource specialist, spoke about the hundreds of archeological sites found at the project and said of the 326 archeological sites found there, three have been studied, 25 are classified as potentially significant and 135 of the sites are under water.



An aerial view of Pomme de Terre Dam shows the control tower which was built into solid rock. When the dam was constructed in the 1950s, room was made for a power plant which has never been utilized.

*continued on page 14*



# Tuttle Creek Lake

## Flood control workhorse of the Kansas River

[www.nwk.usace.army.mil/tuttlecreek/tuttle\\_home.htm](http://www.nwk.usace.army.mil/tuttlecreek/tuttle_home.htm)



Location of Dam: Near Manhattan, Kan.  
Stream/River: Big Blue River  
Miles Above Mouth of Kansas River: 10  
Storage Date: March 7, 1962  
Total Acreage: 59,721  
Lake Size: 12,500 Acres  
Dam Length: 7,487 ft.  
Yearly Visitation: .57 Million

Story Diana McCoy

This is the fourth lake to appear in a series which will outline Kansas City District's 18 lake projects. All projects will appear in chronological order from the date they first stored water.



Photo by Paul Weidhaas

Flint Hills Triathlon participants line up for the swim portion of the meet at Tuttle Creek Lake. This is an annual event held in River Pond State Park, and it precedes the bicycle and running legs of the meet, which also utilizes the dam and surrounding roads.

“Big dam foolishness” was a phrase often touted by opponents of the dam which now lies near Manhattan, Kan. Locals were so extremely against the idea of a dam in the area; they created propaganda films and organized bake sales to finance their fight against it.

Locals were successful for 14 years until they couldn't convince the government to hold off construction any longer.

“Tuttle Creek Dam was authorized in 1938, but construction didn't start on it until 1952,” said Brian McNulty, operations manager for the lake. “Government surveyors working on planning parts of the dam never left town without lunch and a full tank of gas. They knew they wouldn't get any help from the rural folks if they were to break down.”

McNulty said the dam was proposed as a dry dam in the beginning because they wanted to prevent flooding of areas downstream of the Big Blue River during heavy rains. Farmers and residents upstream were still against the dam because it would flood fertile farm land and prevent them from using it.

Propaganda films, which can still be found today, told the public the government was coming to build the dam to protect downstream residents at the expense of local farm land. For most people in the area, that was enough to vote against it.

“The area received heavy rains in 1951,” McNulty said. “Transportation was impossible, communication lines were down, electric power and water was unavailable and thousands of people had to be evacuated.”

After this unprecedented flood event, Congress realized they needed to build the dam, and construction was started in 1952. However, after several years and the need for consistent downstream flows and the desire for recreational draw to the area, they changed the purpose of the dam and lifted the dry dam restriction in 1957. With this change, Tuttle Creek Project became what it is today.

“Tuttle Creek has six authorized purposes today,” McNulty said. “They are flood control, low flow supplementation to the Kansas River, navigation support on the Missouri River, water quality and supply purposes, recreation and fish and wildlife enhancement.”

*continued on page 14*

# SETTING THE STANDARD

*continued from page 8*

much does it cost?" "How many can I get?" Rolf said. The answer? The computers and assorted electronic equipment for each classroom cost about \$78,000. "It's hard to estimate because the computers aren't purchased yet. We're not going to buy computers and have them sit around on a shelf, when we buy we're getting the newest available," Rolf said.

The innovative design of the Lewis and Clark center extends to more than its classroom design. Its structured is made using a proprietary welded framework called "Sideplate."

Dave Manka, resident engineer for the Fort Leavenworth Field Office for the U.S. Army Corps of Engineers, said the Sideplate technology prevents collapse.

"It's been used before, in earthquake zones, but this is the first time it's been used for reasons of building security," he said. "It's designed so that, if there's a failure in one area, the rest of the structure will support itself."

He said installing the Sideplate system is somewhat labor intensive.

"On some of these welds, it can take a person all day long to finish one weld.

Manka said the \$106 million construction project is on schedule, and is set for completion in December, 2006.

The Lewis and Clark Center will replace Bell Hall, a 1958 classroom structure, slated for removal in 2008.

## POMME DE TERRE

*continued from page 12*

"This area had been inhabited by Native Americans for a long time," Locke said. "You can almost throw a rock and find a site, but our main responsibility with the sites is to protect them in case someone wants to come back someday and study them."

Myers said another draw to the lake is the recreation program.

"We have a very good recreation program," he said. There are over 650 campsites, ranging from rustic to those with the modern conveniences of electrical and water hookups. Most sites are built up with landscape timbers due to the hilly terrain."

Visitors can also enjoy hiking, recreational boating, swimming, and hunting of white-tailed deer, eastern wild turkey, rabbit, quail and waterfowl.

Myers said the main function of the lake is flood control, but couldn't pin down one significant event which caused the need for the dam.

"Most of the dams built along the [Missouri River system] were for flood

control," Myers said. The purpose of the dam where it sits in Hermitage, Mo., beyond flood control is for water quality improvement, recreation, improved fish and wildlife habitat and to supplement navigation on the Missouri and Mississippi Rivers."

He said the control tower is unique from any other tower found in the district, adding it's the only one built into a solid rock foundation, which greatly increases the integrity of the tower.

Aside from recreation, Myers said most of his time is taken by the shoreline management program.

"With 113 miles of shoreline and more than 200 subdivisions built on our lake, we have the largest shoreline management program in the division," Myers said. "There are 660 private docks on the lake which we inspect every year for safety, and we manage any roads leading to the lake and ensure they are accessible to the public."

## TUTTLE CREEK

*continued from page 13*

Of those purposes, recreation is the most visible and popular today. Visitors can enjoy the hiking trails, equestrian trails, mountain bike trails, all-terrain vehicle and motorcycle trails, off-road vehicle area, boating, swimming, camping, fishing, and hunting.

"Our ORV area draws people from a four-state area—which no other park in Kansas does," McNulty said. "Every weekend, no matter the weather or time of the year, there's at least one organized group out there utilizing the area."

McNulty also bragged about the big game hunting, saying a some of the largest deer in the state have been harvested in and around the lake.

Tuttle Creek Lake also hosts a yacht club, a forestry research area and is the training facility for the Kansas State University rowing team.

"Our annual events include Eagle Day held the first weekend in January, assisted deer and turkey hunts, U.S. C.A.T.S. Catfishing Tournament, Jeep Jamboree in the ORV area and the Country Stampede," McNulty said.

The Country Stampede is the largest country music festival in the Midwest, with visitation in excess of 125,000 people during the four-day event.

With the excitement for visitors, locals are not left out. A Dam Safety Assurance Program is underway, at Tuttle Creek Dam, one of three U.S. Army Corps of Engineers dams in the country being worked on so it will be more stable in the event of an earthquake.

"We have the largest geotechnical project underway, with an estimated cost of \$210 million," McNulty said. "And we're the only dam in the district with state-of-the-art

seismic monitoring equipment and video camera surveillance."

This allows the project and district staff to see the whole dam, and it's tied into the dam failure warning system which will alert downstream residents to evacuate in case the dam fails.

The DSAP isn't the only "only" for this Flint Hills region lake project.

"We're the primary lake in the district for managing the threatened and endangered species, namely the lease tern and piping plover, with coordination with the district office and the U.S. Fish and Wildlife Service," McNulty said. "And we are the second largest lake in the state when at normal pool level."

Tuttle Creek's dam and reservoir is the states largest flood control pool and has 25 percent of the flood storage for any Kansas River lake, which is substantially larger than any other lake.

"We are the flood control workhorse of the Kansas River," McNulty said.

## TAKE IT TO HEART

### *Letters to the Heartland Engineer*

**"Currently it appears that only new managers appear in the People Power column. I would like to see all new employees introduced in this column. We eventually end up doing business with these people, and don't know what office they come from."--Janet Jones, RM**

"With the recently high number of new managers in NWK, the People Power column has recently focused on those individuals. However, this feature is intended to highlight outstanding accomplishments of any district employee. All district personnel are encouraged to nominate team members to be featured in upcoming issues of the Heartland Engineer. In addition, the LAST WORD column is also open to guest writers, please contact the Public Affairs office if interested in submitting an article for consideration.-- Editor

*In an effort to promote two-way communication, the Heartland Engineer wants to hear from you. If you have a question on a district policy, event, or issue, a comment on a feature or article covered in Heartland Engineer, a suggestion, or simply want to give your own 'two cents', please send them to [thomas.a.o'hara@usace.army.mil](mailto:thomas.a.o'hara@usace.army.mil). Submissions subject to editing and not all are guaranteed to be printed. TAKE IT TO HEART.*



# Voice Over

IP Internet Protocol

*to bring changes to district phone system*

Most Kansas City District employees will see a change in their telephone numbers and the features on their telephones beginning in March as the district moves from an analog telephone system to a digital system called “Voice Over Internet Protocol” or VOIP.

Echo Kean, chief of Information Management support, said VOIP will mean a superior telephone system that brings the district’s communications in line with current industry standards.

“It also saves the district money because it uses the same T-1 data lines we use for Internet service, for which we pay a flat fee,” Kean said.

Kean said the Northwestern Division is exploring VOIP connection for the entire division, meaning the district will not pay long-distance charges to call other districts – and colleagues in other districts will be accessible via four or five-digit dialing.

Under the VOIP system, telephone numbers within the Richard Bolling Federal Building will change, but only slightly, said Carolyn Iob, project manager for the VOIP installation. The 983 prefix will change to 389. Each individual’s four-digit extension will remain the same. If an individual’s current telephone number is 816-983-1234, under the VOIP system, it will be 816-389-1234.

Iob said Phase I one begins Feb. 13, with the installation of 50 telephones in the Troost facility, Smithville Lake Project Offices and the district’s Information Management Office. Phase II comprises the rest of the telephones in the district’s central offices in the Richard Bolling Federal Building. The entire district is scheduled to have use of the VOIP system by the end of June.

“Until April 15, during the test period, you’ll have two telephones on your desk, the analog phone you have now and the VOIP phone,” Iob said.

Iob said district employees will be asked to put a voice mail message on their old telephone, directing callers to their new telephone, and to use the VOIP phone for all the calls they initiate.

She said IM is working to build a network of telephone control officers, one in each office, to help people with the new phones, and that a tutorial will appear on the district’s intranet site to provide guidance in the use of the new telephones.

“They aren’t going to be difficult to use and will even provide some new features,” Iob said.

Iob said all features will not be determined until the latter part of February; however, there will be a Kansas City District Directory on the new phone that isn’t available on the current system. Changes and features for telephones at the district’s project offices will be similar to those in the central offices, but there will be some differences.



# FEBRUARY is Black History Month

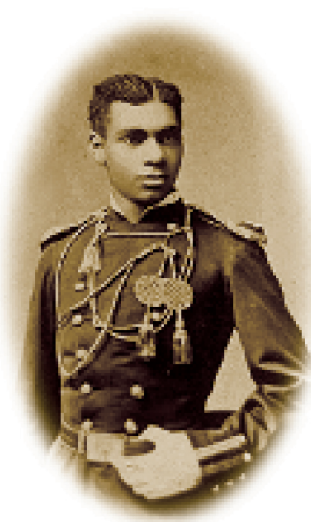


Photo provided

Henry O. Flipper was the first African American to graduate from the U.S. Military Academy at West Point. He was born March 21, 1856 to slaves Isabella and Festus Flipper and became the fifth African American to receive a West Point appointment.

Flipper received his commission in 1877 after tolerating a hostile environment and was given command over Buffalo Soldiers in the Tenth Cavalry. He served at Forts Elliot, Concho, Quitman, Sill, and finally at Fort Davis where he was framed by his white counterparts for embezzlement. At Flipper's court-martial, he was found not guilty, but dishonorably discharged for conduct unbecoming an officer and a gentleman.

As a civilian, Flipper worked as an engineer, surveyor, mining engineer and special agent for the government on southwestern land claims. Flipper also translated texts on Mexican tax mining—being fluent in Spanish.

Flipper died of a heart attack on May 3, 1940, failing to clear his good name with the U.S. Army. His descendants, however, persisted, and in 1976, the Department of the Army granted Flipper an honorable discharge after it recognized his mistreatment. That same year, a bust of Flipper was unveiled at West Point, and in 1999, President Bill Clinton granted Flipper a full pardon.

West Point now gives an award in his honor to the graduating senior who has displayed “the highest qualities of leadership, self-discipline, and perseverance in the face of unusual difficulties while a cadet.”



Photo by Diana McCoy

**Above:** Col. Michael Rossi and Sharon McDonald unveil the 2006 Black Heritage Stamp which features Hattie McDaniel, the first black actress to win an Academy Award. The stamp, 29th in its series, was presented by Ormer Rogers, Jr., a representative from the U.S. Postal Service.

**Below:** Students from Kiddie Kollege perform a song and dance during an awards ceremony held Feb. 2 to honor the winners of the seventh Annual Poetry, Essay & Art Contest. The theme of this year's contest was “Crisis in America: Hurricane Katrina.”



Photo by Diana McCoy